

**GUIDELINES FOR GRANTING A VARIANCE
FROM
TREATMENT REQUIREMENTS
FOR
MUNICIPAL AND COMMUNAL WATER WORKS
USING GROUND WATER SOURCES**

On a case-by-case basis, a variance from treatment requirements will be permitted, but only after assessment of the water quality in relation to the Ontario Drinking Water Objectives together with social and economic factors has been considered and justified.

The following guidelines should be adhered to when seeking a variance from treatment requirements. While it is recognized that flexibility may be exercised in the application of these guidelines under special circumstances to suit local constraints, any variance from these guidelines should be properly justified by the proponent and agreed to by MOE Regional staff.

- (1) A public meeting should be held to discuss reasons for possible variance from treatment requirements. Risk assessment of possible transmission of water-borne diseases or other adverse health effects because of deletion of any basic water treatment step should be addressed and data made available for discussion. It will be the responsibility of the proponent to publish Notices of the public meeting and to provide a suitable meeting hall so that all affected by the decision may be heard. Guidance pertaining to public consultation should be obtained from the Ministry of the Environment.
- (2) The proponent must notify the Medical Officer of Health of the intent to seek a variance from treatment requirements and to solicit his/her opinions.
- (3) A comprehensive sampling program must be developed to establish raw water quality variations. The sampling program must be under the direction of Regional staff and no sampling should be undertaken by the proponent until this matter has been discussed thoroughly with Regional staff.

The well should be pumped at its proposed production rate for at least 48 hours and samples collected for analysis at 12 hour intervals to obtain firm data and to detect possible trends in water quality and maximum contaminant concentrations. If sufficient data are already available with respect to quantity and quality (e.g., replacement well etc.), the pumping period and sampling may be reduced at the discretion of the Regional Director.

Parameters to be analyzed are to be decided on co-operatively by the Regional Director and the Director of Water Resources Branch, and should be broadly based on the "Ontario Drinking Water Objectives - April, 1983 Edition". Analysis for additional parameters may be required based on the local potential for contamination, or where there exists a known discharge or other situation likely to contribute contaminants.

Analyses should be completed by such methods, and under such conditions as recommended by the Regional Director, after consultation with other Branches of the Ministry of the Environment when needed.

Responsibility for data collection rests with the proponent. The Ministry, at its discretion, may assist in carrying out the sampling and analysis program.

Data from the sampling program, together with the recommendations from the Regional Director, shall be submitted to the Director of the Environmental Approvals and Land Use Planning Branch in support of the application for approval of the proposed works as required under Section 23 of the Ontario Water Resources Act. The request for a variance from the treatment requirements must also have the concurrence from the Director of Water Resources Branch.

If a conditional approval is granted and a variance from the treatment requirements allowed, the following conditions should be fulfilled:

- (a) A preliminary plant layout based on the provision of 15 to 30 minutes of chlorine contact time may have to be done to ensure adequate land is acquired in the event that disinfection is needed in future.
- (b) A sampling and reporting program satisfactory to the Regional Director shall be undertaken and maintained by the operating authority in order to monitor raw and delivered water quality to ensure that the water supply system is effective in producing water of an acceptable quality at all times. The monitoring program, if different from the routine program specified in the Ontario Drinking Water Objectives document, can be specified in the Conditional Certificate of Approval issued under Section 23 of the Ontario Water Resources Act.
- (c) Facilities must be provided with complete standby disinfection equipment and disinfecting chemicals storage except:
 - (i) At the discretion of the Regional Director, exemptions from the requirement to provide

complete standby disinfection equipment may be permitted in multi-well supply systems operated by the same authority. Typically, one portable complete standby system should be supplied for every four wells.

- (ii) At the discretion of the Regional Director and where exemption from providing disinfection equipment is obtained, exemption from providing on-site disinfecting chemical storage may be permitted in multi-well supply systems operated by the same authority, provided that approved disinfecting chemicals are readily available to that authority.
- (d) As a precautionary measure, disinfection should be carried out for a period of time sufficient to establish an accurate raw water bacteriological quality data base.